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Developing a resource to support children returning to school during the COVID-19 pandemic

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Developing a resource to support children returning to school during the COVID-19 pandemic

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Keywords: COVID-19; rapid review, needs assessment; qualitative research;

education; public health

Word count: 2410

Abstract

Objective

As COVID-19 lockdown measures were eased in the UK, this scoping exercise aimed to rapidly identify topics to cover within a children's storybook "My Back to School Bubble", designed to support the return to school.

Methods

An email invitation was sent to approximately fifty known contacts within networks across Public Health England, local authorities, health protection teams, other governmental contacts in education, and some teachers, parents / carers. This asked about recommendations of topics to feature in a classroom resource to support the transition back to school.

Results and Recommendations

Findings from the thirty-one responses highlighted that children are likely to hold differing feelings regarding COVID-19, depending on their own temperament, and lockdown experiences. These feelings should be acknowledged by recognising their personal and family circumstances, including changes in relationships with family and friends. Clear, accurate information about the new school environment should be provided, especially to support children with behavioural, emotional, or social difficulties or autism. Encouraging children to take ownership of health and hygiene behaviours, such as handwashing will help to normalise this and prevent the spread of infection, beyond the COVID-19 pandemic.

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What is known about the subject:

- Many resources were developed for children during the COVID-19 pandemic including several stories, all examples of these were designed to support 'stay at home' measures.

- Schools in the UK started to return from June 2020, at this time no resources aimed at children existed to support this.

- "Social stories" provide information about what to expect in certain situations; they have successfully supported autistic children and could help children understand new guidance.

What this study adds:

- This review highlights factors impacting children's behaviours, how anxieties can be reduced, and how feelings of hope can encourage a positive return to school.

- This includes ensuring that parents / carers and teachers provide the right information regarding school changes and encourage good hygiene behaviours, putting these suggestions into practice.

- Providing information about hygiene must be in combination with reassurance if children forget the rules, to combat anxiety, but reminded for next time.

Background

Since January 2020, a vast number of resources have been created to educate children and young people about what coronavirus disease 2019 (COVID-19) is, how it spreads, and how to change behaviours to reduce the risk of infection and transmission of the severe acute respiratory virus (SARS-CoV-2) which causes COVID-19. Resources were developed to help children and young people understand why it was important to stay at home whilst lockdown measures were imposed in the UK and understand why they were not able to see and play with family and friends outside of their household. However, as the lockdown restrictions eased and primary schools prepared to welcome the first groups of children back in June 2020, there was a gap in age-appropriate resources to support children returning to school.

The Primary Care and Interventions Unit at Public Health England (PHE) operate the educational resource e-Bug, which teaches 4-18 year olds about hygiene, infections, and antibiotics, with interactive, visual, and age-appropriate resources [1]. e-Bug is a global resource, endorsed by the National Institute of Health and Care Excellence (NICE) to help teach hand washing and promote antimicrobial stewardship [2]. The e-Bug resources have been successfully used in a wide range of settings including science shows, and peer education, with improvements found in educating children around infection prevention and hygiene in peer-led lessons and science shows, and classroom gaming [3-6]. The e-Bug team aimed to create a storybook "My Back to School Bubble" to host on the e-Bug website [1], to help children understand the new protective measures that may be in place at their school and address any fears and anxieties about returning to school, after months of not seeing their friends or teachers.

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The protective measures to support children returning to school include, documented in the Department for Education's COVID-19 guidance for the full opening of schools included [7]:

Prevention

1) Minimise contact with individuals who are unwell by ensuring that those who have coronavirus (COVID-19) symptoms, or who have someone in their household who does, do not attend school.

2) Where recommended, use of face coverings in schools.

3) Clean hands thoroughly more often than usual.

4) Ensure good respiratory hygiene by promoting the 'catch it, bin it, kill it' approach.

5) Introduce enhanced cleaning, including cleaning frequently touched surfaces often, using standard products such as detergents and bleach.

6) Minimise contact between individuals and maintain social distancing wherever possible.

7) Where necessary, wear appropriate personal protective equipment (PPE).

- Numbers 1 to 5 must be in place in all schools, all the time.
- Number 6 must be properly considered, and schools must put in place measures that suit their particular circumstances.
- Number 7 applies in specific circumstances.

"Social stories" have been successfully used to encourage autistic children to develop a better understanding of real-life situations, activities and events, and encourage positive responses to changes in routine [8]. Although initially designed to

support autistic children to stay safe and find meaning in rules and routines, it can be argued that similar stories can be used to reassure children of all ages and abilities when coping with life changes, including the COVID-19 pandemic. A storybook for children involving aspects of "social stories" may be appropriate to communicate key messages and normalise children's feelings about what they are going through, acknowledge that school will be different, yet teachers, parents and carers will be available to help them with adjusting to a new normal.

Aim

As COVID-19 lockdown measures were eased in the UK, the primary aim of this scoping exercise was to rapidly collate feedback on topics to cover for a children's storybook to support the return of younger children to school, including their fears and anxieties. The study aimed to illuminate practical ways to support younger children returning to school, which would also be helpful for teachers, community educators, special education needs coordinators (SENCOs), educational psychologists, healthcare professionals, those working with children and young people, i.e. Girlguiding / Scouts groups, public health professionals interested in developing educational guidance for children and young people, and those working in departments of health and education.

Methods

Recruitment and Data Collection

Due to time sensitivity, convenience sampling was used, and an email invitation to contribute storybook topics was sent at the end of May, following the announcement by the government of the gradual reopening of schools in June, to known contacts across PHE and other national networks. Participating professionals were

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encouraged to forward the invitation to their networks but asked for responses the same day, so that these could be collated and used to develop the story in the tight timeframe.

Participants

Participants included individuals from PHE Children, Young People and Families (CYPF) Centre Leads, early years settings group within PHE, Department for Education, health protection teams, local authority representatives, teachers, parents/carers (and their children).

Data analysis

Feedback provided by return of email was thematically analysed, independently, by two researchers (RS and MH), using NVivo Pro 11 software as a tool to sort data, including analysis of codes, quotes and themes. Both researchers then discussed and agreed on the main themes to resolve any differences.

Patients and Public Involvement

Due to the rapid nature of this project, teachers and students were involved through known PHE networks, rather than contacted directly. Public health professionals and teachers provided the data, and reviewed drafts of the storybook before publication. Once finalised, the storybook was circulated via the same networks that were used for data collection.

Ethics

This study was reviewed and approved by the PHE Research Ethics & Governance (REGG) group (R&D Ref: NR0230).

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Results

In total, 31 responses to the invitation were analysed for the scoping exercise and six

main themes emerged from the data (Table 1) in relation to: changes in school

environment, acknowledging feelings, relationships with family, relationships with

friends, language and content, and taking ownership of health and hygiene

behaviours.

Changes in school environment

Changes in the classroom environment included having a different teacher, or not

being in the usual classroom, and a shorter school day. Changes to classroom

layout to allow more space between students, and no assemblies, or being in large

groups. Physical distancing included parents not being allowed to come inside the

school, staying 2 metres away from other children and adults in the classroom and

playground, where possible, as well as limiting the number of people children interact

with inside and outside school. Not sharing toys or equipment was also reported.

New school rules centred around good hygiene practices, including more frequent

handwashing, using toilets alone, and wiping all equipment after use.

Acknowledging feelings

It was reported that children could have several anxieties about returning to school,

including worries about how adults and other children will treat them and worrying

about having the virus and passing it on to others. There was a general consensus

that the increased family time spent during lockdown and sense of belonging should

be celebrated. Children may have picked up various skills, and new ways of showing

affection during this time, which should be celebrated. Various reactions such as

feeling cross and out of place would be normal during this unusual period.

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Relationships with family

Concern for others included children who may be young carers: defined as a young person under 18 who helps to look after a relative with a disability, illness, mental health condition, or drug or alcohol problem [9]. Other children may be concerned for vulnerable family members who they may share a space with or be fearful that they would also pose a risk to their health. Some children would have been more isolated than others, especially in single-child households, therefore may exhibit greater separation anxiety from leaving their parents and family members behind when going to school, after several months spent indoors.

Relationships with friends

Relationships with friends could change as children may not be in the same "bubble" as their peers that they would usually interact with. Changes also include refraining from sharing things with friends. Some children could be more fearful of getting close to other children, for fear of getting the virus, or spreading it, especially if they have been more isolated during the lockdown period.

Language and content

The general consensus was to provide children and young people with clear messages that are coherent and may be repetitive of the key take home messages, such as following school rules and keeping up with good hygiene. This would also be useful and relevant for educating teachers, parents / carers. Clear routines would help children, especially those with learning difficulties, or autism or Attention Deficit Hyperactivity Disorder (ADHD) to reintegrate into the new school environment and understand what is expected of them.

Taking ownership of health and hygiene behaviours

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Children should be taught more about hand and respiratory hygiene and encouraged to wash their hands more frequently and catch their coughs and sneezes appropriately when they return to school. It should be good practice to encourage children to actively take ownership of their own health and understand not to come into school if they feel unwell. Other aspects of keeping healthy could be considered, such as physical activity, eating well and good sleep hygiene.

Discussion

The main findings suggested that children's fears and anxieties are complex and encompass a range of different feelings including apprehension to return to school, and missing contact with friends and family. The information was used to decide what should be included in the children's storybook "My Back to School Bubble" [1]. Educational tools to help children understand the new protective measures that may be in place at their school and address any fears and anxieties about returning to school after several months of not seeing their friends or teachers would ideally address the following main topics arising from the data. There are also implications for others, including parents/carers and teachers; policymakers, healthcare professionals and educational psychologists.

Implications for parents / carers and teachers

Changes to school environment

To normalise transition into a very different school environment, children should be made aware and feel supported about these changes, as they adapt to a different school life. Parents / carers and teachers should facilitate regular handwashing to help children remember. Parents / carers and teachers would benefit from regular communication with teachers and schools to help understand the changes relevant for their own school. To aid communication, parents / carers and teachers would benefit from learning what is expected in their new school environment. This may help to avoid transfer of any fears and worries from adults to children.

Acknowledging feelings

Children and young people are likely to hold differing feelings regarding COVID-19, depending on their own temperament and personalities, and personal experiences during lockdown, and family circumstances. It may be beneficial to encourage hope and focus on the positives from lockdown, which included increased family time, and a sense of community. By acknowledging that children may have learnt new skills during this time at home, it may help distract from worries about leaving home and coming back to school again.

Relationships with family and friends

Resources should acknowledge feelings of fear and worry about being close to others or worry about family or friends who might be ill. Children may need reminding of physical distancing rules as it may take a while to get used to them, for example remembering not to get too close to a friend they usually play with. Rules and reminders that are phrased as DOs and not constant DON'Ts may serve as better reminders if children forget. To encourage adjustment to new school rules, it is important to avoid negative reinforcement and penalties if these are forgotten, as this may adversely affect accepting changes to rules.

Implications for policymakers, healthcare professionals and educational psychologists

Language and content

Resources need to have clear, consistent messaging in simple language, suitable for those with learning difficulties, Attention deficit hyperactive disorder (ADHD), or autism. Clear routines will help children, especially those with behavioural, social, or emotional difficulties to reintegrate into the new school environment. Educational psychologists and special educational needs coordinators (SENCOs) are important

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stakeholders in the current climate, to help schools build a safe learning environment for all, especially to help these groups of children who may benefit from additional support to help understand what is expected of them.

Taking ownership of health and hygiene behaviours

Hand and respiratory hygiene should be further embedded into the national curriculum, by working with policy-makers, and departments of health and education. Children should be encouraged to take ownership of their hygiene behaviours, such as handwashing more often, especially after the toilet, and before and after eating, and washing any toys or equipment after use. If hygiene behaviours are further embedded into the school curriculum, including physical activity, healthy eating and sleep hygiene, this will encourage a holistic view of good health and may help mitigate some of the other risks to child mental health.

Conclusions

This review has highlighted a range of factors that could impact children's thoughts and behaviours, and ways that anxieties can be reduced, and how feelings of hope can be harnessed to encourage a positive return to school life. This includes ensuring that parents / carers and teachers provide the right information on school changes and encourage good hygiene behaviours and put these suggestions into practice. Providing information about hygiene must be in combination with reassurance if children sometime forget, to combat anxiety, but are reminded for next time. e-Bug is an ideal educational global resource that teaches on hygiene, and infection, prevention and control and may be used in both school and home settings. Educational psychologists, and departments of health and education will be best placed to support children returning to school, and future work with policy-

makers to get hygiene further embedded into the school curriculum may help reduce

the spread of infection during COVID-19 and beyond. Educators could use this

information to create their own resources, encompassing the topics discussed, and

ensuring that the language and content is suitable for those with learning or

behavioural difficulties.

Acknowledgements

We thank all teachers, parents/carers and public health professionals who

responded to the scoping email, either sharing their own suggestions, collating

feedback from the schools in their region, or asking their children for suggestions for

the storybook. We thank NABU for collaborating with e-Bug to create the "My Back

to School Bubble" storybook which is freely available on e-Bug's COVID-19 page:

https://e-bug.eu/

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Table 1. Six main themes derived from thematic analysis of ideas on what should be covered in a children's storybook to help children return to school during the COVID-19 pandemic

Main themes	Sub-themes	Quotes
Changes in school environment	Changes in classroom environment Physical distancing and changes in play New school rules to follow	"You may not have your normal teacher. They may not be in school, or they may need to teach other children." "We won't be holding assemblies." "The school day will be shorter than normal." "Spacing out children. Lots of cleaning before during and after school. Social distancing. Personal equipment – not sharing." "When we come to the school, Mum and Dad should say goodbye by the entrance to the school, and not inside." "…and although it's nice to share, we shouldn't share them [toys] with each other just for the time being." "We should preferably still only play with a few friends and preferably the same ones both in and outside of school." "Like outside school, you need to stay 2 metres away from other children and adults. This means you can be with your friends in the same classroom, but not too close." "Playtimes will happen but not all children will be out on the playground at the same time. This will be the same for lunchtimes. This means we will play and have lunch with a small group of our friends."

		"How will I know how close I can go to other children? Your teachers will help you. They may put markers on the floor or use ribbons to show you where you can and cannot go."
		"Toilets will be in use. You can use them but on your own."
		"One of the most important things is that we must still remember to wash our hands really often and thoroughly. Firstly, when we arrive in the morning, every time it's playtime, when we have been to the toilet, before and after eating, and when we have blown our noses. And again, when we come home from school."
		"We must also remember to give our mobile phones, tablets and keyboards such a good clean before and after we use them."
Acknowledging feelings	Mental health, fears and anxieties

Encouraging hope and focus on positives

Normalising reactions | "…their anxieties about returning to school may include wondering how other people, children and adults, may respond to whatever emotions the child is experiencing – and there can be a range."

"…worry about passing COVID-19 to others and causing them illness, or worse, because of the way it has been reported."

"Harnessing the kindness and gratitude that has come about during the pandemic."

"Holding on to the positive things from lockdown– sense of community, family time, trying new things." |

			"… 'smile more hug less'- developing new ways of showing affection/that you care around social distancing."

"Celebrating the things children have achieved during lockdown. Giving hope that things will get better."

"Creating a sense of belonging recognising that the environment may feel quite alien but also that children will all be in different places in terms of how they are feeling and have been impacted."

"… its ok to feel cross about loss of normal life." |
| Relationships with family | Concern for others

Separation anxiety | | "… worried about someone vulnerable in their family… (The young carers hub has identified 278 young carers."

"Children worrying that they might create risk for their parents [particularly if a family member is more at risk]."

"Some children may have anxiety about leaving other family members behind, especially if they are worried about significant others who are already vulnerable. Will they pick me up? Will they be there when I get home?"

"… fear of leaving families after being together for all this time."

"My daughter says some children have been very isolated for three months if in a single child household- so they are anxious about returning to school." |

		"Another is that young children have been told to stay at home very consistently over the last few months. Now some are almost afraid to leave the house."
Relationships with friends	Changes in interacting with friends Fears about getting close	"Because children will be organised to be in small groups or bubbles they may not be with their friends." "Can I hug and cuddle friends I haven't seen for a while? No. Doctors say that this isn't a good idea now." "Can I share my things with my friends? Not now. It is very important to use your own pens, pencils and books. This is so that germs are not spread around." "They have also been told to keep away from other children so being closer may worry them." "Fears about: Getting close to people/Catching the virus."
Language and content	Accurate information to be given Autism, Attention deficit hyperactivity disorder (ADHD) and learning difficulties	"… keep the visual messages strong and clear & maybe have a repeated refrain/message which the characters return to e.g. surrounding hand washing or not worrying (whatever the key message of the book will be)." "Also something around fact vs fiction (dispelling myths about the virus that will circulate wildly in a child/school setting- built from media/social dialogue and child-like taunts etc)." "I think information about returning to school would be helpful to children and I think most importantly these books are to be read

		at home with the family. So they can be discussed and any questions raised can be answered by parents."
		"Establishing clear routines may be particularly important for children on the autistic spectrum."
		"My only suggestion would be to consider children with autism and perhaps seek expert advice from the National Autistic Society?"
Taking ownership of health and hygiene behaviours	Healthy behaviours Hygiene behaviours	"Do I come to school if I feel poorly? No. It is very important you stay at home if you feel in any way poorly." "Looking after yourself physically, eating well, physical activity, sleeping well." "Looking after yourself infection control, hand washing, 2 metres, staying in, vaccination."

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A scoping exercise to develop a storybook to support children's education during the COVID-19 pandemic

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Word count: 2498

Abstract

Objective

In June 2020, as COVID-19 lockdown measures were eased in the UK, this scoping exercise aimed to rapidly identify topics to cover within a children's online storybook "My Back to School Bubble", designed to support the return to school.

Methods

An email invitation was sent to seventy-one known contacts within networks across Public Health England, local authorities, health protection teams and contacts within the Department for Education.

Following online publication of "My Back to School Bubble", users were asked to provide informal feedback via an online survey to ask about their impressions of the story.

Results

Findings from the thirty-one responses highlighted that children are likely to hold differing feelings regarding COVID-19, depending on their own temperament, and lockdown experiences, including changes in relationships with family and friends.

Following the launch of "My Back to School Bubble", twenty-one users provided feedback on the e-storybook via survey. 67% (14/21) of respondents indicated that the storybook was a useful tool for providing support to children, and 57% (12/21) reported that the resource helped children understand their own feelings.

Recommendations

Clear, accurate information about the new school environment should be provided, especially important to support children with special educational needs and

disabilities (SEND), including those with autism. Encouraging children to take ownership of their health and hygiene behaviours, such as handwashing, will help to normalise this and prevent the spread of infection.

Lessons learnt from the development of "My Back to School Bubble" online storybook suggest the clarity of imagery could be improved to better support children with autism. Future work should focus on both longitudinal, and qualitative research, on the long-term effects of the pandemic on children's development and education, effects on mental health and resilience, peer socialisation, and ability to cope with life-changing events.

What is known about the subject:

- Many resources were developed for children during the COVID-19 pandemic including several stories, all examples of these were designed to support 'stay at home' measures.

- Schools in the UK started to return from June 2020, at this time no resources aimed at children existed to support this.

- "Social stories" provide information about what to expect in certain situations; they have successfully supported autistic children and could help children understand new guidance.

What this study adds:

- This scoping exercise highlights that parents / carers and teachers should provide up to date information regarding school changes and encourage good hygiene behaviours.

- Providing information about hygiene must be in combination with reassurance if children forget the rules, to combat anxiety, but reminded for next time.

- When producing new resources, images should be inclusive and clear to all; feedback indicates SEND students may favour photographs, or greater clarity in illustrations.

Background

Since January 2020, a vast number of resources [1-6] have been created to educate

children and young people about what coronavirus disease 2019 (COVID-19) is, how

it spreads, and how to change behaviours to reduce the risk of infection and

transmission of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)

[7], which causes COVID-19. In June 2020, as primary schools prepared to welcome

the first groups of children back following lockdown restrictions, a gap in age-

appropriate resources to support children returning to school was identified.

The Primary Care and Interventions Unit at Public Health England (PHE) operates

the educational resource e-Bug, which helps teach 4-18 year olds about hygiene,

infections, and antibiotics, with interactive, visual, and age-appropriate resources [8].

e-Bug is an international resource, endorsed by the National Institute of Health and

Care Excellence (NICE) and recommended by the Department for Education to

teach hand washing and promote antimicrobial stewardship [9 10]. The e-Bug

resources have been found to be successful in educating children about infection

prevention and hygiene in peer-led lessons, science shows, and classroom gaming

[11-14]. The e-Bug team aimed to create a storybook "My Back to School Bubble" to

host on the e-Bug website [8], to support the transition of children returning to school.

In England, the protective measures to support children returning to school, included

[10]:

1) Minimising contact with individuals who are unwell by ensuring that those who

have coronavirus (COVID-19) symptoms, or who have someone in their household

who does, do not attend school.

2) Cleaning hands thoroughly more often than usual.

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4) Ensuring good respiratory hygiene by promoting the 'catch it, bin it, kill it' approach.

5) Introducing enhanced cleaning, including cleaning frequently touched surfaces often, using standard products such as detergents and bleach.

6) Minimising contact between individuals and maintain social distancing wherever possible.

"Social stories" have been successfully used to encourage children with autism to communicate key messages and develop a better understanding of real-life situations, activities and events, and encourage positive responses to changes in routine [5]. Although initially designed to support children with autism to stay safe and find meaning in rules and routines, similar stories can be used to reassure children of all ages and abilities to deal with life changes, including the COVID-19 pandemic.

Aim

As COVID-19 lockdown measures were eased in the UK, the primary aim of this scoping exercise was to rapidly collate feedback on topics to cover for a children's storybook to support the return of primary school children to educational settings and addressing the fears and anxieties they may have. The study aimed to illuminate practical ways to support children returning to school, suitable for school and community educators, and public health professionals, including government bodies.

Methods

Recruitment and Data Collection

Due to time sensitivity, a convenience sample of seventy-one known contacts across PHE and other national networks were approached, to provide feedback on developing a resource which could be used imminently in a school setting.

An email invitation to contribute storybook topics was sent at the end of May 2020, following the announcement by the government of the gradual reopening of schools in June. Participating professionals were encouraged to forward the invitation to their networks, and asked for responses the same day, so that these could be used to develop the story within the tight timeframe.

Following online publication of "My Back to School Bubble", users were asked to provide feedback via an online survey between June – November 2020. The survey was promoted on social media, alongside the download of "My Back to School Bubble". Participation was encouraged with the incentive of being entered into a prize draw for a £40 high-street voucher.

The survey included a combination of twelve Likert scale and open-ended questions, which included questions on impression, content, illustration, usefulness and relevance. The survey also asked users for recommendations for improvements.

Participants

Participants (Table 1) included individuals from PHE Children, Young People and Families (CYPF) Centre Leads, the early years settings group within PHE, Department for Education, health protection teams, and local authority representatives, with several respondents additionally reporting their own views as parents/carers.

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Data analysis

Feedback provided by return of email was thematically analysed, independently, by two researchers (RS and MH), using NVivo Pro 11 software as a tool to sort data, including analysis of codes, quotes and themes. Both researchers then discussed and agreed on the main themes to resolve any differences.

Descriptive statistics were used to analyse evaluation survey data and free text answers were analysed using NVivo Pro 11. Themes were identified by a single researcher (MH) due to the small data set.

Patients and Public Involvement

Due to the rapid nature of this project, teachers and students were involved through known PHE networks, rather than contacted directly. Public health professionals and members of the Department for Education provided the data, and reviewed drafts of the storybook before publication. Once finalised, the storybook was circulated via the same networks that were used for data collection.

Ethics

This study was reviewed and approved by the PHE Research Ethics & Governance (REGG) group (R&D Ref: NR0230).

Table 1. Composition of invited participants and contributors.

Invited participants		
Organisation	**Role/network**	**N**
Public Health England/local authorities	Health and Wellbeing	1
	Primary Care and Interventions Unit	2
	Children and Families Centre Leads Network	27
	Children Young Peoples and Families Team	8
	Children Young People and Families Network (multi-organisational)	16
	Schools and COVID-19 South West Coordinating Group including representatives from Health Protection	15
Department for Education	Early Years Quality and Outcomes Division	2
TOTAL:		**71**
Contributors		
Local authority	Public Health	4
	Educational Psychologist	1
Public Health England	Primary Care and Interventions Unit	2
	Children and Families Centre Leads Network	5
	Children, Young People & Families Network	15
Department for Education	Early Years Quality and Outcomes Division	2
	Pupil Mental Wellbeing	1
National Children's Bureau	Unknown	1
TOTAL:		**31**

Results

In total, 31 responses to the invitation were analysed for the scoping exercise and six

main themes emerged from the data, (Table 2): changes in school environment,

acknowledging feelings, relationships with family, relationships with friends,

language and content, and taking ownership of health and hygiene behaviours.

Changes in school environment

Changes in the classroom environment included having a different teacher, or not

being in the usual classroom, and a shorter school day. Changes to classroom

layout to allow more space between students, no assemblies, and physical

distancing between parents, teachers and other children were also discussed. Not

sharing toys or equipment and new school rules centred around good hygiene

practices, including more frequent handwashing, using toilets alone, and wiping all

equipment after use.

Acknowledging feelings

It was reported that children could have several anxieties, including worries about

how adults and other children will treat them and worrying about having coronavirus

and passing it on to others. There was a consensus that family time spent during

lockdown, and sense of belonging should be celebrated; children may have picked

up various skills, and new ways of showing affection. Various reactions, such as

feeling cross and out of place will be normal during this unusual period.

Relationships with family

Concern for others, included children who may be young carers (a young person

under 18 who helps to look after a relative with a disability, illness, mental health

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condition, or drug or alcohol problem) [15], some children may be concerned for vulnerable family members. Some children will have been more isolated, especially in single-child households, therefore may exhibit greater separation anxiety from leaving their parents and family members behind.

Relationships with friends

Relationships with friends could change as children may not be in the same "bubble" as their usual peers. Some children could be more fearful of close contact, for fear of getting the virus, or spreading it, especially if they have been more isolated during the lockdown period.

Language and content

The general consensus was to provide children with coherent or repetitive take home messages, such as following school rules and maintaining good hygiene. Clear routines would help children, especially those with learning difficulties, autism or Attention Deficit Hyperactivity Disorder (ADHD) to reintegrate into the new school environment and understand what is expected of them.

Taking ownership of health and hygiene behaviours

Children should be taught more about hand and respiratory hygiene and encouraged to wash their hands frequently and catch coughs and sneezes in a tissue. It should be good practice to encourage children to actively take ownership of their own health and let an adult know if they are feeling unwell, as they should not be in school if symptomatic. Other aspects of keeping healthy could be considered, such as physical activity, eating well and good sleep hygiene.

Evaluation feedback

Following development of "My Back to School Bubble, 21 users completed an online

feedback survey. Data showed that 57% (12/21) of respondents were parents/carers

who had read the book with their child. 33% (7/21) were educators who used the

book with their class, and 24% (5/21) classed themselves as "other"; however 60%

(3/5) of these respondents had not used the book with children, and 40% (2/5) did

not specify. Regarding age appropriateness, 86% (18/21) indicated that it would be

appropriate for either Key Stage 1 or Key Stage 2 (Ages 5-11).

When asked to rate the "usefulness to support children returning to school" 67%

(14/21) rated the storybook as either "pretty good" or "excellent", and (2/21) 10%

reported the book to be "poor" or "very poor".

When asked to rate the "relevance to my school's COVID-19 protective measures"

71% (15/21) rated the storybook as either 'pretty good' or 'excellent', whilst 19%

(4/21) reported the book to be 'poor' or 'very poor' (Figure 1).

When asked about whether the storybook had impacted children's behaviour or

perceptions, 61% (13/21) of respondents reported "agree" or "strongly agree" that

the storybook had helped "reassure children that they could ask for help if they forgot

things or made a mistake". 57% (12/21) reported "agree" or "strongly agree" that the

storybook "helped children understand their own feelings". Areas in which the

storybook performed less well included "understanding of what their school bubble

is"; 19% (4/21) reported either "disagree" or "strongly disagree" (Figure 2). When

asked what improvements could be made, 67% (14/21) respondents contributed,

and reported:

1. Greater support for SEND students. Suggestions included: increasing

   inclusivity of illustrations, clarity of illustrations, or photographs.

2. Participants reported the storybook deviated from COVID-19 guidelines, often specific to their own school.

3. Future resources could include a resource for older children or parents, or further exploration of advances that we are likely to see relating to COVID-19.

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Discussion

The main findings suggested that children's fears and anxieties can encompass a range of different feelings. The information was used to decide on topics for the children's storybook "My Back to School Bubble". [8] Educational tools to help children understand the new protective measures that may be in place at their school and address any fears and anxieties would ideally address the main topics arising from the data.

Results of the evaluation of "My Back to School Bubble" explored the success of the resource in supporting children returning to school, and identified aspects for improvement. These included more clarity in illustrations and greater inclusivity and ongoing communication of changing guidelines.

Implications for parents / carers and teachers

Changes to school environment

To normalise transition into a different school environment, children should be made aware and feel supported about changes. Parents/carers would benefit from regular communication with teachers to understand changes and what is expected at school. This may include changes in the movement of staff and students, entrance and exit measures, and classroom ventilation.

Feedback from the storybook evaluation identified that the rapid change in guidance, and individual choices made by schools meant that it is challenging to create a single unified resource relevant to all, supporting further development of relevant resources.

Acknowledging feelings

Children and young people are likely to hold differing feelings regarding COVID-19, depending on their own temperament, and personal circumstances. Review articles have investigated the effects of lockdown and the pandemic on child mental health. [16] [17] This has suggested there is a need to ameliorate access to mental health support services in youth groups that are targeted to help develop effective coping mechanisms during the current pandemic. It may be beneficial to encourage hope and focus on the positives from lockdown. By acknowledging that children may have learnt new skills during this time, may help distract from worries about going back to school.

Relationships with family and friends

Resources should acknowledge feelings of fear or worry about being close to others or worry about ill family or friends. Children may need reminding of physical distancing rules. Rules and reminders that are phrased as DOs and not constant DON'Ts may serve as better reminders, if children forget. To encourage adjustment to new school rules, it is important to avoid negative reinforcement, penalties or attributing blame, as this may adversely affect anxiety regarding COVID-19. Peer influence may become more prevalent in some young people, such as aligning behaviours to that of their peer group, which can also affect following rules, such as physical distancing [18].

Implications for policymakers, healthcare professionals and educational psychologists

Language and content

Resources should be in simple language, suitable for SEND students, with consistent messaging. Clear routines may help children, especially those with SEND, to reintegrate into the new school environment.

During the storybook evaluation, the clarity of images or illustrations was identified as an area for improvement, with a suggestion that SEND students may favour photographs.

Taking ownership of health and hygiene behaviours

Children should be encouraged to take ownership of their hygiene behaviours, such as handwashing more often, especially after the toilet, before and after eating, and washing any toys or equipment after use. If hygiene behaviours are further embedded into the school curriculum, including physical activity, healthy eating and sleep hygiene, this will encourage a holistic view of good health and may help mitigate some of the other risks to child mental health.

Limitations

As a result of using a convenience sample, there was a relatively small number of responses for this scoping exercise. This limitation was balanced by a high and diverse response rate in view of time restrictions.

Future work

We recommend that future work focusses on both longitudinal and qualitative research, on the long-term effects of the pandemic on children's development and

education and moving into adolescence, effects on mental health and resilience, peer socialisation, and ability to cope with life-changing events. There is a need to teach children practical coping mechanisms and identify the gaps in current mental health provision to bolster support provided to youth groups during and post-pandemic.

Conclusions

This review has highlighted that age-appropriate and helpful educational tools can be developed even in the fast-paced and complex environment of a pandemic. Resources would benefit from a focus on factors that could impact children's thoughts and behaviours, and ways that anxieties can be reduced, including how feelings of hope can be harnessed to encourage a positive return to school life. This included ensuring that parents/carers and teachers provide the right information on school changes and role model good hygiene behaviours. Providing information about hygiene must be in combination with reassurance, if children sometimes forget, to combat anxiety, but are reminded for next time. Educational psychologists, and Departments of Health and Education could be best placed to support children returning to school, and future work with policy-makers to get hygiene further embedded into the school curriculum, may help reduce the spread of infection during COVID-19 and beyond. Educators could use this information to create their own resources, encompassing the topics discussed, and ensuring that the language and content is suitable for those with learning or behavioural difficulties.

Acknowledgements

feedback from the schools in their region, or asking their children for suggestions for

the storybook. We thank NABU for collaborating with e-Bug to create the "My Back

to School Bubble" storybook which is freely available on e-Bug's COVID-19 page:

https://e-bug.eu/

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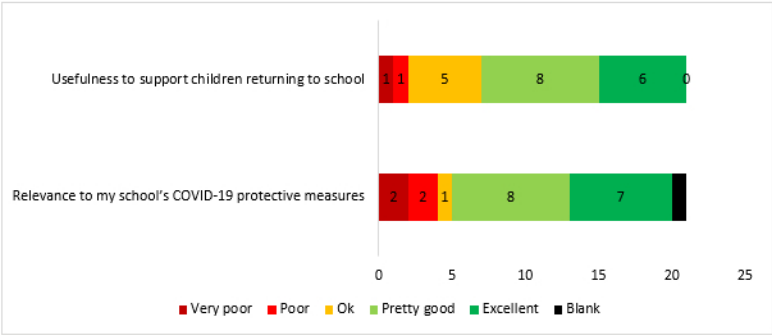
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Figure 1. Users' rating of "My Back to School Bubble" regarding "usefulness to support children returning to school" and "Relevance to my school's COVID-19 protective measures".
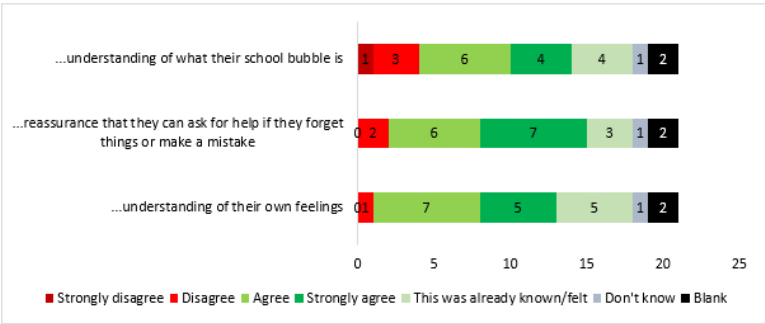
Figure 2. Users' responses when asked to what extent they agree with "Since reading "My Back to School Bubble", my child(ren)/student(s) have an increased…"

Table 2. Six main themes derived from thematic analysis of ideas on what should be covered in a children's storybook to help children return to school during the COVID-19 pandemic

Main themes	Sub-themes	Quotes
Changes in school environment	Changes in classroom environment Physical distancing and changes in play New school rules to follow	"You may not have your normal teacher. They may not be in school, or they may need to teach other children." "We won't be holding assemblies." "The school day will be shorter than normal." "Spacing out children. Lots of cleaning before during and after school. Social distancing. Personal equipment – not sharing." "When we come to the school, Mum and Dad should say goodbye by the entrance to the school, and not inside." "…and although it's nice to share, we shouldn't share them [toys] with each other just for the time being." "We should preferably still only play with a few friends and preferably the same ones both in and outside of school." "Like outside school, you need to stay 2 metres away from other children and adults. This means you can be with your friends in the same classroom, but not too close." "Playtimes will happen but not all children will be out on the playground at the same time. This will be the same for

		lunchtimes. This means we will play and have lunch with a small group of our friends."
		"How will I know how close I can go to other children?" "Your teachers will help you. They may put markers on the floor or use ribbons to show you where you can and cannot go."
		"Toilets will be in use. You can use them but on your own."
		"One of the most important things is that we must still remember to wash our hands really often and thoroughly. Firstly, when we arrive in the morning, every time it's playtime, when we have been to the toilet, before and after eating, and when we have blown our noses. And again, when we come home from school."
		"We must also remember to give our mobile phones, tablets and keyboards such a good clean before and after we use them."
Acknowledging feelings	Mental health, fears and anxieties Encouraging hope and focus on positives Normalising reactions	"…their anxieties about returning to school may include wondering how other people, children and adults, may respond to whatever emotions the child is experiencing – and there can be a range." "…worry about passing COVID-19 to others and causing them illness, or worse, because of the way it has been reported." "Harnessing the kindness and gratitude that has come about during the pandemic."

| | | | "Holding on to the positive things from lockdown– sense of community, family time, trying new things."

"… 'smile more hug less'- developing new ways of showing affection/that you care around social distancing."

"Celebrating the things children have achieved during lockdown. Giving hope that things will get better."

"Creating a sense of belonging recognising that the environment may feel quite alien but also that children will all be in different places in terms of how they are feeling and have been impacted."

"… its ok to feel cross about loss of normal life." |
|---|---|---|---|
| Relationships with family | Concern for others

Separation anxiety | | "… worried about someone vulnerable in their family…
(The young carers hub has identified 278 young carers."

"Children worrying that they might create risk for their parents [particularly if a family member is more at risk]."

"Some children may have anxiety about leaving other family members behind, especially if they are worried about significant others who are already vulnerable. Will they pick me up? Will they be there when I get home?"

"… fear of leaving families after being together for all this time." |

		"My daughter says some children have been very isolated for three months if in a single child household- so they are anxious about returning to school."
		"Another is that young children have been told to stay at home very consistently over the last few months. Now some are almost afraid to leave the house."
Relationships with friends	Changes in interacting with friends Fears about getting close	"Because children will be organised to be in small groups or bubbles they may not be with their friends." "Can I hug and cuddle friends I haven't seen for a while? No. Doctors say that this isn't a good idea now." "Can I share my things with my friends? Not now. It is very important to use your own pens, pencils and books. This is so that germs are not spread around." "They have also been told to keep away from other children so being closer may worry them." "Fears about: Getting close to people/Catching the virus."
Language and content	Accurate information to be given Autism, Attention Deficit Hyperactivity Disorder (ADHD) and learning difficulties	"… keep the visual messages strong and clear & maybe have a repeated refrain/message which the characters return to e.g. surrounding hand washing or not worrying (whatever the key message of the book will be)." "Also something around fact vs fiction (dispelling myths about the virus that will circulate wildly in a child/school setting- built from media/social dialogue and child-like taunts etc)."

			"I think information about returning to school would be helpful to children and I think most importantly these books are to be read at home with the family. So they can be discussed and any questions raised can be answered by parents." "Establishing clear routines may be particularly important for children on the autistic spectrum." "My only suggestion would be to consider children with autism and perhaps seek expert advice from the National Autistic Society?"
Taking ownership of health and hygiene behaviours	Healthy behaviours Hygiene behaviours		"Do I come to school if I feel poorly? No. It is very important you stay at home if you feel in any way poorly." "Looking after yourself physically, eating well, physical activity, sleeping well." "Looking after yourself infection control, hand washing, 2 metres, staying in, vaccination."

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A scoping exercise to develop a storybook to support children's education during the COVID-19 pandemic

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Word count: 2483

Abstract

Objective

In June 2020, COVID-19 lockdown measures were eased in the UK. This scoping exercise aimed to rapidly identify topics to cover within a children's online storybook "My Back to School Bubble", designed to support the return to school.

Methods

An email invitation was sent to seventy-one known contacts within networks across Public Health England, local authorities, health protection teams and contacts within the Department for Education.

Following online publication of "My Back to School Bubble", users were asked to provide informal feedback via an online survey to ask about their impressions of the story.

Results

Findings from the thirty-one responses highlighted that children are likely to hold differing feelings regarding COVID-19, depending on their own temperament, and lockdown experiences, including changes in relationships with family and friends.

Following the launch of "My Back to School Bubble" e-storybook, twenty-one users provided feedback via survey. Fourteen respondents (67%) indicated that the storybook was a useful tool for providing support to children, and twelve (57%) reported that the resource helped children understand their own feelings.

Recommendations

Clear, accurate information about the new school environment should be provided in the context of COVID-19. It is especially important to support children with special

educational needs and disabilities (SEND), including those with autism. Encouraging children to take ownership of their health and hygiene behaviours, such as handwashing, will help to normalise this and prevent the spread of infection.

Lessons learnt from the development of "My Back to School Bubble" online storybook suggest the clarity of imagery could be improved to better support children with autism. Future work should focus on longitudinal and qualitative research. This should include the long-term effects of the pandemic on children's development and education, effects on mental health and resilience, peer socialisation, and ability to cope with life-changing events.

What is known about the subject:

- Many resources were developed for children during the COVID-19 pandemic including several stories, all examples of these were designed to support 'stay at home' measures.

- Schools in the UK started to return from June 2020, at this time no resources aimed at children existed to support this.

- "Social stories" provide information about what to expect in certain situations; they have successfully supported autistic children and could help children understand new guidance.

What this study adds:

- This scoping exercise highlights that parents / carers and teachers should provide up to date information regarding school changes and encourage good hygiene behaviours.

- Providing information about hygiene must be in combination with reassurance if children forget the rules, to combat anxiety.

- When producing new resources, images should be inclusive and clear to all; feedback indicates SEND students may favour photographs, or greater clarity in illustrations.

Background

Since January 2020, a vast number of resources [1-6] have been created to educate children and young people about what coronavirus disease 2019 (COVID-19) is, how it spreads, and how to change behaviours to reduce the risk of infection and transmission of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) [7]. In June 2020, as primary schools prepared to welcome the first groups of children back following lockdown restrictions, a gap in age-appropriate resources to support children returning to school was identified.

The Primary Care and Interventions Unit at Public Health England (PHE) operates the educational resource e-Bug, which helps teach 4-18 year olds about hygiene, infections, and antibiotics, with interactive, visual, and age-appropriate resources [8]. e-Bug is an international resource, endorsed by the National Institute of Health and Care Excellence (NICE) and recommended by the Department for Education to teach hand washing and promote antimicrobial stewardship [9 10]. The e-Bug resources have been found to be successful in educating children about infection prevention and hygiene in peer-led lessons, science shows, and classroom gaming [11-14]. The e-Bug team aimed to create a storybook "My Back to School Bubble" to host on the e-Bug website [8], to support the transition of children returning to school.

In England, the protective measures to support children returning to school, included [10]:

1) Minimising contact with individuals who are unwell by ensuring that those who have coronavirus (COVID-19) symptoms, or who have someone in their household who does, do not attend school.

2) Cleaning hands thoroughly more often than usual.

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4) Ensuring good respiratory hygiene by promoting the 'catch it, bin it, kill it' approach.

5) Introducing enhanced cleaning, including cleaning frequently touched surfaces often, using standard products such as detergents and bleach.

6) Minimising contact between individuals and maintain social distancing wherever possible.

"Social stories" have been successfully used to encourage children with autism to communicate key messages and develop a better understanding of real-life situations, activities and events, and encourage positive responses to changes in routine [5]. Although initially designed to support children with autism to stay safe and find meaning in rules and routines, similar stories can be used to reassure children of all ages and abilities to deal with life changes, including the COVID-19 pandemic.

Aim

As COVID-19 lockdown measures were eased in the UK, the aim of this scoping exercise was to rapidly collate feedback on topics for a children's storybook to support the return of primary school children to educational settings, addressing possible fears and anxieties. The study aimed to illuminate practical ways to support children returning to school, suitable for school and community educators, and public health professionals, including government bodies.

Methods

Recruitment and Data Collection

Due to time sensitivity, a convenience sample of seventy-one known contacts across PHE and other national networks were approached, to provide feedback on developing a resource which could be used imminently in a school setting.

An email invitation to contribute storybook topics was sent at the end of May 2020, following the announcement by the government of the gradual reopening of schools in June. Participating professionals were encouraged to cascade the invitation among their networks, and asked for responses the same day, so that these could be used to develop the story within the tight timeframe.

Following online publication of "My Back to School Bubble", users were asked to provide feedback via an online survey between June – November 2020. The survey was promoted on social media, alongside the download of "My Back to School Bubble". Participation was encouraged with the incentive of being entered into a prize draw for a £40 high-street voucher.

The survey included a combination of twelve Likert scale and open-ended questions, which included questions on impression, content, illustration, usefulness and relevance. The survey also asked users for recommendations for improvements.

Participants

Participants (Table 1) included individuals from PHE Children, Young People and Families (CYPF) Centre Leads, the early years settings group within PHE, Department for Education, health protection teams, and local authority representatives, with several respondents additionally reporting their own views as parents/carers.

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Data analysis

Feedback provided by return of email was thematically analysed, independently, by two researchers (RS and MH), using NVivo Pro 11 software as a tool to sort data, including analysis of codes, quotes and themes. Both researchers then discussed and agreed on the main themes to resolve any differences.

Descriptive statistics were used to analyse evaluation survey data and free text answers were analysed using NVivo Pro 11. Themes were identified by a single researcher (MH) due to the small data set.

Patients and Public Involvement

Due to the rapid nature of this project, teachers and students were involved through known PHE networks, rather than contacted directly. Public health professionals and members of the Department for Education provided the data, and reviewed drafts of the storybook before publication. Once finalised, the storybook was circulated via the same networks that were used for data collection.

Ethics

This study was reviewed and approved by the PHE Research Ethics & Governance (REGG) group (R&D Ref: NR0230).

Table 1. Composition of invited participants and contributors.

Organisation	Role/network	Approached	Contributed
Public Health England/local authorities	Children Young People and Families Network (multi-organisational)	16	15
	Children and Families Centre Leads Network	27	5
	Schools and COVID-19 South West Coordinating Group including representatives from Health Protection	15	4
	Children Young Peoples and Families Team	8	0
	Primary Care and Interventions Unit	2	2
	Health and Wellbeing	1	0
	Educational Psychologist	(Invitation cascaded)	1
Department for Education	Early Years Quality and Outcomes Division	2	2
	Pupil Mental Wellbeing	(Invitation cascaded)	1
Other	National Children's Bureau	(Invitation cascaded)	1
TOTAL:		**71**	**31**

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Results

In total, 31 responses to the invitation were analysed for the scoping exercise and six

main themes emerged from the data, (Supplementary Table 2). Themes included:

changes in school environment, acknowledging feelings, relationships with family,

relationships with friends, language and content, and taking ownership of health and

hygiene behaviours.

Changes in school environment

Changes in the classroom environment included having a different teacher, or not

being in the usual classroom, and a shorter school day. Changes to classroom

layout to allow more space between students, no assemblies, and physical

distancing between parents, teachers and other children were also discussed. Not

sharing toys or equipment and new school rules centred around good hygiene

practices, including more frequent handwashing, using toilets alone, and wiping all

equipment after use.

Acknowledging feelings

It was reported that children could have several anxieties, including worries about

how adults and other children will treat them and worrying about having coronavirus

and passing it on to others. There was a consensus that family time spent during

lockdown, and sense of belonging should be celebrated; children may have picked

up various skills, and new ways of showing affection. Various reactions, such as

feeling cross and out of place will be normal during this unusual period.

Relationships with family

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Concern for others, included children who may be young carers (a young person under 18 who helps to look after a relative with a disability, illness, mental health condition, or drug or alcohol problem) [15]. Some children may be concerned for vulnerable family members, while some children will have been more isolated, especially in single-child households, therefore may exhibit greater separation anxiety from leaving their parents and family members behind.

Relationships with friends

Relationships with friends could change as children may not be in the same "bubble" as their usual peers. Some children could be more fearful of close contact, for fear of getting the virus, or spreading it, especially if they have been more isolated during the lockdown period.

Language and content

The general consensus was to provide children with coherent or repetitive take home messages, such as following school rules and maintaining good hygiene. Clear routines would help children, especially those with learning difficulties, autism or Attention Deficit Hyperactivity Disorder (ADHD) to reintegrate into the new school environment and understand what is expected of them.

Taking ownership of health and hygiene behaviours

Children should be taught more about hand and respiratory hygiene and encouraged to wash their hands frequently and catch coughs and sneezes in a tissue. It should be good practice to encourage children to actively take ownership of their own health and let an adult know if they are feeling unwell, as they should not be in school if symptomatic. Other aspects of keeping healthy could be considered, such as physical activity, eating well and good sleep hygiene.

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Evaluation feedback

Following development of "My Back to School Bubble, 21 users completed an online

feedback survey. Data showed that over half (12/21) of respondents were

parents/carers who had read the book with their child. Just over a quarter (7/21)

were educators who used the book with their class, the remainder (5/21) classed

themselves as "other"; however, 3/5 of these respondents had not used the book

with children, and 2/5 did not specify. Regarding age appropriateness, the majority

(18/21) indicated that it would be appropriate for either Key Stage 1 or Key Stage 2

(Ages 5-11).

When asked to rate the "usefulness to support children returning to school" 14/21

rated the storybook as either "pretty good" or "excellent", and 2/21 reported the book

to be "poor" or "very poor".

When asked to rate the "relevance to my school's COVID-19 protective measures"

15/21 rated the storybook as either 'pretty good' or 'excellent', whilst 4/21 reported

the book to be 'poor' or 'very poor' (Figure 1).

When asked about whether the storybook had impacted children's behaviour or

perceptions, 13/21 of respondents reported "agree" or "strongly agree" that the

storybook had helped "reassure children that they could ask for help if they forgot

things or made a mistake". 12/21 reported "agree" or "strongly agree" that the

storybook "helped children understand their own feelings". Areas in which the

storybook performed less well included "understanding of what their school bubble

is"; 4/21 reported either "disagree" or "strongly disagree" (Figure 2). When asked

what improvements could be made, 14/21 respondents contributed, and reported:

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1. Greater support for SEND students. Suggestions included: increasing inclusivity of illustrations, clarity of illustrations, or photographs.

2. Participants reported the storybook deviated from COVID-19 guidelines, often specific to their own school.

3. Future resources could include a resource for older children or parents, or further exploration of advances that we are likely to see relating to COVID-19.

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Discussion

The main findings suggested that children's fears and anxieties can encompass a range of different feelings. The information was used to decide on topics for the children's storybook "My Back to School Bubble". [8] Educational tools to help children understand the new protective measures that may be in place at their school and address any fears and anxieties would ideally address the main topics arising from the data.

Results of the evaluation of "My Back to School Bubble" explored the success of the resource in supporting children returning to school, and identified aspects for improvement. These included more clarity in illustrations and greater inclusivity and ongoing communication of changing guidelines.

Implications for parents / carers and teachers

Changes to school environment

To normalise transition into a different school environment, children should be made aware and feel supported about changes. Parents/carers would benefit from regular communication with teachers to understand changes and what is expected at school. This may include changes in the movement of staff and students, entrance and exit measures, and classroom ventilation.

Feedback from the storybook evaluation identified that the rapid change in guidance, and individual choices made by schools meant that it is challenging to create a single unified resource relevant to all, supporting further development of relevant resources.

Acknowledging feelings

Children and young people are likely to hold differing feelings regarding COVID-19, depending on their own temperament, and personal circumstances. Review articles have investigated the effects of lockdown and the pandemic on child mental health [16] [17]. This has suggested there is a need to ameliorate access to mental health support services in youth groups that are targeted to help develop effective coping mechanisms during the current pandemic. It may be beneficial to encourage hope and focus on the positives from lockdown. By acknowledging that children may have learnt new skills during this time, may help distract from worries about going back to school.

Relationships with family and friends

Resources should acknowledge feelings of fear or worry about being close to others or worry about ill family or friends. Children may need reminding of physical distancing rules. Rules and reminders that are phrased as DOs and not constant DON'Ts may serve as better reminders, if children forget. To encourage adjustment to new school rules, it is important to avoid negative reinforcement, penalties or attributing blame, as this may adversely affect anxiety regarding COVID-19. Peer influence may become more prevalent in some young people, such as aligning behaviours to that of their peer group, which can also affect following rules, such as physical distancing [18].

Implications for policymakers, healthcare professionals and educational psychologists

Language and content

Resources should be in simple language, suitable for SEND students, with consistent messaging. Clear routines may help children, especially those with SEND, to reintegrate into the new school environment.

During the storybook evaluation, the clarity of images or illustrations was identified as an area for improvement, with a suggestion that SEND students may favour photographs.

Taking ownership of health and hygiene behaviours

Children should be encouraged to take ownership of their hygiene behaviours, such as handwashing more often, especially after the toilet, before and after eating, and washing any toys or equipment after use. If hygiene behaviours are further embedded into the school curriculum, including physical activity, healthy eating and sleep hygiene, this will encourage a holistic view of good health and may help mitigate some of the other risks to child mental health.

Limitations

As a result of using a convenience sample, there was a relatively small number of responses for this scoping exercise. This limitation was balanced by a high and diverse response rate in view of time restrictions.

Future work

We recommend that future work focusses on both longitudinal and qualitative research, on the long-term effects of the pandemic on children's development and

education and moving into adolescence, effects on mental health and resilience, peer socialisation, and ability to cope with life-changing events. There is a need to teach children practical coping mechanisms and identify the gaps in current mental health provision to bolster support provided to youth groups during and post-pandemic.

Conclusions

This review has highlighted that age-appropriate and helpful educational tools can be developed even in the fast-paced and complex environment of a pandemic. Resources would benefit from a focus on factors that could impact children's thoughts and behaviours, and ways that anxieties can be reduced, including how feelings of hope can be harnessed to encourage a positive return to school life. This included ensuring that parents/carers and teachers provide the right information on school changes and role model good hygiene behaviours. Providing information about hygiene must be in combination with reassurance, if children sometimes forget, to combat anxiety, but are reminded for next time. Educational psychologists, and Departments of Health and Education could be best placed to support children returning to school. Future work with policymakers to get hygiene further embedded into the school curriculum may help reduce the spread of infection during COVID-19 and beyond. Educators could use this information to create their own resources, encompassing the topics discussed, and ensuring that the language and content is suitable for those with learning or behavioural difficulties.

Acknowledgements

feedback from the schools in their region, or asking their children for suggestions for

the storybook. We thank NABU for collaborating with e-Bug to create the "My Back

to School Bubble" storybook which is freely available on e-Bug's COVID-19 page:

https://e-bug.eu/

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Competing interests: None.

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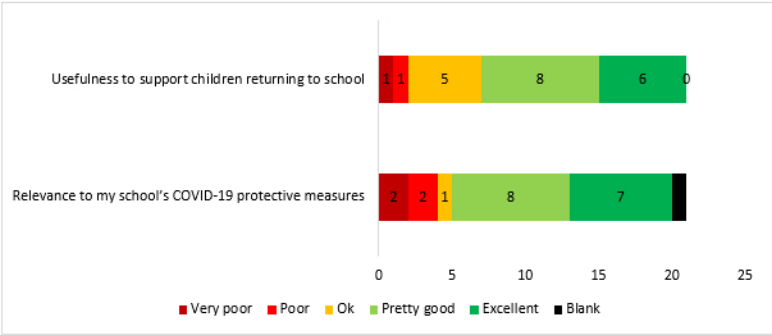51
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Figure 1. Users' rating of "My Back to School Bubble" regarding "usefulness to support children returning to school" and "Relevance to my school's COVID-19 protective measures".

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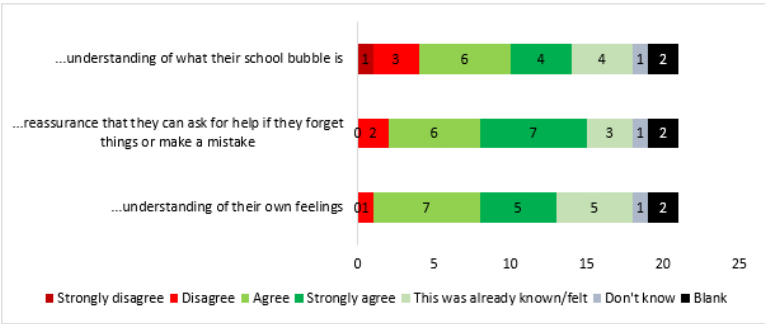51
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Figure 2. Users' responses when asked to what extent they agree with "Since reading "My Back to School Bubble", my child(ren)/student(s) have an increased…"

Supp. Table 1. Six main themes derived from thematic analysis of ideas on what should be covered in a children's storybook to help children return to school during the COVID-19 pandemic

Main themes	Sub-themes	Quotes
Changes in school environment	Changes in classroom environment Physical distancing and changes in play New school rules to follow	"You may not have your normal teacher. They may not be in school, or they may need to teach other children." "We won't be holding assemblies." "The school day will be shorter than normal." "Spacing out children. Lots of cleaning before during and after school. Social distancing. Personal equipment – not sharing." "When we come to the school, Mum and Dad should say goodbye by the entrance to the school, and not inside." "…and although it's nice to share, we shouldn't share them [toys] with each other just for the time being." "We should preferably still only play with a few friends and preferably the same ones both in and outside of school." "Like outside school, you need to stay 2 metres away from other children and adults. This means you can be with your friends in the same classroom, but not too close." "Playtimes will happen but not all children will be out on the playground at the same time. This will be the same for

		lunchtimes. This means we will play and have lunch with a small group of our friends."
		"How will I know how close I can go to other children?" "Your teachers will help you. They may put markers on the floor or use ribbons to show you where you can and cannot go."
		"Toilets will be in use. You can use them but on your own."
		"One of the most important things is that we must still remember to wash our hands really often and thoroughly. Firstly, when we arrive in the morning, every time it's playtime, when we have been to the toilet, before and after eating, and when we have blown our noses. And again, when we come home from school."
		"We must also remember to give our mobile phones, tablets and keyboards such a good clean before and after we use them."
Acknowledging feelings	Mental health, fears and anxieties Encouraging hope and focus on positives Normalising reactions	"…their anxieties about returning to school may include wondering how other people, children and adults, may respond to whatever emotions the child is experiencing – and there can be a range." "…worry about passing COVID-19 to others and causing them illness, or worse, because of the way it has been reported." "Harnessing the kindness and gratitude that has come about during the pandemic."

		"Holding on to the positive things from lockdown– sense of community, family time, trying new things."
		"… 'smile more hug less'- developing new ways of showing affection/that you care around social distancing."
		"Celebrating the things children have achieved during lockdown. Giving hope that things will get better."
		"Creating a sense of belonging recognising that the environment may feel quite alien but also that children will all be in different places in terms of how they are feeling and have been impacted."
		"… its ok to feel cross about loss of normal life."
Relationships with family	Concern for others	"… worried about someone vulnerable in their family… (The young carers hub has identified 278 young carers."
	Separation anxiety	"Children worrying that they might create risk for their parents [particularly if a family member is more at risk]."
		"Some children may have anxiety about leaving other family members behind, especially if they are worried about significant others who are already vulnerable. Will they pick me up? Will they be there when I get home?"
		"… fear of leaving families after being together for all this time."

		"My daughter says some children have been very isolated for three months if in a single child household- so they are anxious about returning to school."
		"Another is that young children have been told to stay at home very consistently over the last few months. Now some are almost afraid to leave the house."
Relationships with friends	Changes in interacting with friends Fears about getting close	"Because children will be organised to be in small groups or bubbles they may not be with their friends." "Can I hug and cuddle friends I haven't seen for a while? No. Doctors say that this isn't a good idea now." "Can I share my things with my friends? Not now. It is very important to use your own pens, pencils and books. This is so that germs are not spread around." "They have also been told to keep away from other children so being closer may worry them." "Fears about: Getting close to people/Catching the virus."
Language and content	Accurate information to be given Autism, Attention Deficit Hyperactivity Disorder (ADHD) and learning difficulties	"… keep the visual messages strong and clear & maybe have a repeated refrain/message which the characters return to e.g. surrounding hand washing or not worrying (whatever the key message of the book will be)." "Also something around fact vs fiction (dispelling myths about the virus that will circulate wildly in a child/school setting- built from media/social dialogue and child-like taunts etc)."

		"I think information about returning to school would be helpful to children and I think most importantly these books are to be read at home with the family. So they can be discussed and any questions raised can be answered by parents." "Establishing clear routines may be particularly important for children on the autistic spectrum." "My only suggestion would be to consider children with autism and perhaps seek expert advice from the National Autistic Society?"
Taking ownership of health and hygiene behaviours	Healthy behaviours Hygiene behaviours	"Do I come to school if I feel poorly? No. It is very important you stay at home if you feel in any way poorly." "Looking after yourself physically, eating well, physical activity, sleeping well." "Looking after yourself infection control, hand washing, 2 metres, staying in, vaccination."